

ABSTRACT OF DISCLOSURE

In the process of plasma dicing in which the semiconductor wafer 6 is divided into individual pieces by plasma, SiO₂ layer 42 and the protective layer 43, which
5 are formed covering the active layer 41, are utilized as an etching stop layer for absorbing fluctuation of the etching rate in the first plasma dicing step in which the wafer base layer 40 is etched and cut off. Next, the second plasma dicing step is conducted in which the etching stop
10 layer exposed by the first plasma dicing step is cut off with plasma of the second plasma generating gas capable of etching at a high etching rate, and heat damage is prevented which is caused when the protective sheet 30 is exposed to plasma for a long period of time.

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[Selected Drawing] Fig. 8